

REMARKS

The Final Office Action mailed May 23, 2007, has been received and reviewed. Claims 1 through 19 were pending in the application. Claims 1 through 19 stand rejected. Applicant proposes to amend claims 1, 9, and 16 and cancel claim 12. The amendments and claim cancellations are made without prejudice and disclaimer. Reconsideration of the application as proposed to be amended herein is respectfully requested.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on Patent No. EP 1 308 491 to Choy in view of U.S. Patent No. 5,568,173 to Leenders *et al.* and U.S. Patent No. 6,585,364 to Kasperchik *et al.*

Claims 1 through 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Choy (Patent No. EP 1 308 491) in view of Leenders *et al.* (U.S. Patent No. 5,568,173) (hereinafter “Leenders”) and Kasperchik *et al.* (U.S. Patent No. 6,585,362) (hereinafter “Kasperchik”). Claim 12 has been canceled herein, thereby mooted the rejection as to that claim. Applicant respectfully traverses this rejection, as hereinafter set forth.

Regarding claim 1, none of the cited references teach “wherein the deposited dye-based ink has a chroma at least two units greater than dye-based ink deposited on an identical print medium at room temperature.” Regarding Choy, in addition to not teaching the claimed temperature range and the use of a charged polymer fixer, Choy does not teach increased chroma. Choy relates to decreased dry time. Additionally, one of skill in the art would not have an expectation of success in trying to increase chroma based on the teachings of Choy. Choy teaches that “[h]eating will increase the rate at which the ink and/or fixer vehicle evaporates and will have reduce the drytime.” *Page 5, lines 46-47*. One of skill in the art would expect rapid evaporation to have the same result as rapid precipitation (*i.e.*, reduced chroma). *See, e.g.*, paragraphs [0005], [0022], and [0023] of Applicant’s specification. Therefore, one of skill in the art would not expect heating to result in increased chroma.

Regarding Leenders, it does not teach the use of a charged polymer fixer and does not teach an increased chroma. Leenders relates to “enlarged gray scale reproduction capabilities.”

Column 3, lines 65-67. One of ordinary skill in the art understands that gray scale contains no chroma. Thus, Leenders cannot be relied upon to teach this element. Additionally, Leenders teaches the use of a light-insensitive silver salt for reacting with a reducing agent in the ink.

Column 6, lines 15-19; see also the claims. This would not lead one of ordinary skill in the art to try and increase chroma by heating a charged polymer fixer.

Regarding Kasperchik, it does not teach increased chroma. Additionally, Kasperchik relates to acceleration of dye precipitation. *See, e.g., Abstract.* One of skill in the art would expect this to result in decreased chroma. *See, e.g.,* paragraphs [0005], [0022], and [0023] of Applicant's specification. This would not lead one of ordinary skill in the art to try and increase chroma by heating a charged polymer fixer.

Claims 2 through 8 are non-obvious for at least the reason of depending from independent claim 1.

Regarding claims 9 and 16, the cited references should not be combined to teach "a charged polymer fixer fluid on a plain paper print medium," as recited in amended claim 9, or "a pen set configured to apply dye-based ink and a charged polymer fixer to the plain paper in the heated print zone," as recited in amended claim 16. One of ordinary skill in the art would not have a reasonable expectation of success in developing the claimed invention based upon the teachings of the cited references. The pretreatment liquid of Kasperchik, potentially containing a cationic polymer, is used to "chemically [adjust] the hydrophilicity of the swellable media surface." *Column 2, lines 54-56.* This accelerates "shifting of the polymer chains at the media surface." *Column 2, lines 58-60.* Choy teaches that paper is hydrophilic. *Paragraph [0025].* None of the references teach what effect pretreatment of a hydrophilic surface, such as plain paper, with a charged polymer would have. Leenders does not cure this failing of Choy and Kasperchik. Thus, one of ordinary skill in the art would not have a reasonable expectation of success in developing the claimed invention based upon the teachings of the cited references. Therefore, the claims are non-obvious.

Claims 10, 11, 13 through 15, and 17 through 19 are non-obvious for at least the reason of depending from non-obvious independent claims.

ENTRY OF AMENDMENTS

The proposed amendments to claims 1, 9, and 16 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application. Specifically, support for the amendment to claim 1 may be found in paragraph [0046] of the as-filed specification. Support for the amendments to claims 9 and 16 may be found in now canceled claim 12 and in paragraph [0028] of the as-filed specification. Further, the amendments do not raise new issues or require a further search. Finally, if the Examiner determines that the amendments do not place the application in condition for allowance, entry is respectfully requested upon filing of a Notice of Appeal herein.

CONCLUSION

Claims 1 through 11 and 13 through 19 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, the Examiner is respectfully invited to contact Applicant's undersigned attorney.

Respectfully submitted,



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Date: July 23, 2007
ERC/csk:tlp
Document in ProLaw